

AMENDMENTS TO THE CLAIMS

Please cancel rejected claims 1, 5 and 9 as follows (a complete claim listing is provided below pursuant to 37 CFR 1.121), and add their subject matter respectively to allowable claims 12 to 17, noting that claims 2 to 4, 6 to 8 and 10 and 11 were canceled:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) A head system for performing azimuth recording on a recording medium by use of a plurality of recording heads, wherein:
said head system comprises a first recording head A including a plurality of first magnetic gaps A1, A2 having a first azimuth angle, and a second recording head B including a

plurality of second magnetic gaps B1, B2 having a second azimuth angle different from said first azimuth angle; and

a positional relationship between said first and second magnetic gaps is so determined that in relation to each magnetization pattern formed on said recording medium by said first magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are overwritten by said second magnetic gaps of said second recording head, wherein the height of the lower edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a central portion of the gap B1, and wherein

said first and second recording heads are thin-film heads, and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps and wherein said first and second recording heads are mounted on a rotary drum, and each of said magnetization patterns formed on said recording medium is an inclined track, wherein said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern in the formation direction of said magnetization pattern formed by each said first magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head

~~The head system as set forth in claim 1 and,~~ wherein, as for the height relationship between the gaps A1 and A2, the upper edge of A1 is at the same height as the lower edge of A2, so that when the upper edge of A1 is at the same height as the lower edge of A2 side edges of magnetization patterns formed on the tape by the magnetic gaps coincide with each other at the boundary therebetween.

13. (Currently Amended) A head system for performing azimuth recording on a recording medium by use of a plurality of recording heads, wherein:

said head system comprises a first recording head A including a plurality of first magnetic gaps A1, A2 having a first azimuth angle, and a second recording head B including a plurality of second magnetic gaps B1, B2 having a second azimuth angle different from said first azimuth angle; and

a positional relationship between said first and second magnetic gaps is so determined that in relation to each magnetization pattern formed on said recording medium by said first magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are overwritten by said second magnetic gaps of said second recording head, wherein the height of the lower edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a central portion of the gap B1, and wherein

said first and second recording heads are thin-film heads, and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps and wherein said first and second recording heads are mounted on a rotary drum, and each of said magnetization patterns formed on said recording medium is an inclined track, wherein said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern in the formation direction of said magnetization pattern formed by each said first magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head, The head system as set forth in

~~claim 1~~, wherein, as for the height relationship between the gaps A1 and A2, a slight clearance is provided between the upper edge of A1 and the lower edge of A2, or the upper edge of A1 and the lower edge of A2 overlap on each other, so that when there is a slight clearance between the upper edge of A1 and the lower edge of A2, the magnetization patterns formed on the tape by the magnetic gaps overlap on each other.

14. (Currently Amended) A recording and reproduction system for performing azimuth recording on a tape form recording medium by a plurality of recording heads, said system comprising a head system having a plurality of said recording heads, and a tape feeding means for feeding said tape form recording medium, wherein

said head system comprises a first recording head A including a plurality of magnetic gaps A1, A2 having a first azimuth angle, and a second recording head B including a plurality of magnetic gaps B1, B2 having a second azimuth angle different from said first azimuth angle, and a positional relationship between said magnetic gaps is so determined that in relation to each magnetization pattern formed on said tape form recording medium by said magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are overwritten by said magnetic gaps of said second recording head, wherein the height of the lower edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a central portion of the gap B1, and, wherein

said first and second recording heads are thin-film heads, and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps and wherein

said first and second recording heads are mounted on a rotary drum, and each of said magnetization patterns formed on said recording medium is an inclined track, wherein
said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern in the formation direction of said magnetization pattern formed by each said magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head. The recording and reproduction system as set forth in claim 5, and wherein, as for the height relationship between the gaps A1 and A2, the upper edge of A1 is at the same height as the lower edge of A2, so that when the upper edge of A1 is at the same height as the lower edge of A2 side edges of magnetization patterns formed on the tape by the magnetic gaps coincide with each other at the boundary therebetween.

15. (Currently Amended) A recording and reproduction system for performing azimuth recording on a tape form recording medium by a plurality of recording heads, said system comprising a head system having a plurality of said recording heads, and a tape feeding means for feeding said tape form recording medium, wherein
said head system comprises a first recording head A including a plurality of magnetic gaps A1, A2 having a first azimuth angle, and a second recording head B including a plurality of magnetic gaps B1, B2 having a second azimuth angle different from said first azimuth angle, and a positional relationship between said magnetic gaps is so determined that in relation to each magnetization pattern formed on said tape form recording medium by said magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are

overwritten by said magnetic gaps of said second recording head, wherein the height of the lower edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a central portion of the gap B1, and, wherein

said first and second recording heads are thin-film heads, and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps and wherein said first and second recording heads are mounted on a rotary drum, and each of said magnetization patterns formed on said recording medium is an inclined track, wherein
said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern in the formation direction of said magnetization pattern formed by each said magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head, The recording and reproduction system as set forth in claim 5, wherein, as for the height relationship between the gaps A1 and A2, a slight clearance is provided between the upper edge of A1 and the lower edge of A2, or the upper edge of A1 and the lower edge of A2 overlap on each other, so that when there is a slight clearance between the upper edge of A1 and the lower edge of A2, the magnetization patterns formed on the tape by the magnetic gaps overlap on each other.

16. (Currently Amended) A magnetic recording method for performing azimuth recording on a recording medium by use of a plurality of recording heads, comprising the steps of:

forming first magnetization patterns on said recording medium by a first recording head
A comprising a plurality of magnetic gaps A1, A2 having a first azimuth angle; and
forming second magnetization patterns on said recording medium by overwriting side
edge portions in the formation direction of said first magnetization patterns by a second recording
head B comprising a plurality of magnetic gaps B1, B2 having a second azimuth angle different
from said first azimuth angle, wherein said first and second recording heads are mounted on a
rotary drum, and each of said magnetization patterns formed on said recording medium is an
inclined track, and
said overwriting is conducted with such a positional relationship that a side edge portion
in the formation direction of said first magnetization pattern coincides substantially with the
center in the width direction of said second magnetization pattern, and wherein the height of the
lower edge portion of the gap A1 is about the same as the height of a central portion of the gap
B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a
central portion of the gap B1, The recording method as set forth in claim 9, wherein, as for the
height relationship between the gaps A1 and A2, the upper edge of A1 is at the same height as
the lower edge of A2, so that when the upper edge of A1 is at the same height as the lower edge
of A2 side edges of magnetization patters formed on the tape by the magnetic gaps coincide with
each other at the boundary therebetween.

17. (Currently Amended) A magnetic recording method for performing azimuth
recording on a recording medium by use of a plurality of recording heads, comprising the steps
of:

forming first magnetization patterns on said recording medium by a first recording head
A comprising a plurality of magnetic gaps A1, A2 having a first azimuth angle; and
forming second magnetization patterns on said recording medium by overwriting side
edge portions in the formation direction of said first magnetization patterns by a second recording
head B comprising a plurality of magnetic gaps B1, B2 having a second azimuth angle different
from said first azimuth angle, wherein said first and second recording heads are mounted on a
rotary drum, and each of said magnetization patterns formed on said recording medium is an
inclined track, and
said overwriting is conducted with such a positional relationship that a side edge portion in the
formation direction of said first magnetization pattern coincides substantially with the center in
the width direction of said second magnetization pattern, and wherein the height of the lower
edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and
the height of a lower edge portion of the gap A2 is about the same as the height of a central
portion of the gap B1.~~The recording method as set forth in claim 9, wherein, as for the height~~
relationship between the gaps A1 and A2, a slight clearance is provided between the upper edge
of A1 and the lower edge of A2, or the upper edge of A1 and the lower edge of A2 overlap on
each other, so that when there is a slight clearance between the upper edge of A1 and the lower
edge of A2, the magnetization patterns formed on the tape by the magnetic gaps overlap on each
other.